

DEP 1996 PHOSPHATE MINING WASTE TREATMENT REQUIREMENTS 62-671

CHAPTER 62-671
PHOSPHATE MINING WASTE TREATMENT REQUIREMENTS

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62-671.100 Scope/Intent/Purpose. (Repealed)

Specific Authority 403.061, FS.

Law Implemented 403.021, 403.061, 403.087, 403.088, 403.101, 403.111, 403.121, 403.141, 403.161, 403.182, 403.502, 403.702, FS.

History -- New 11-27-89, Formerly 17-671.100, Repealed 12-24-96.

62-671.200 Definitions.

The definitions set forth in Title 40, United States Code of Federal Regulations, Part 401 and Section 436.181, are adopted by reference, except where in conflict with the definitions in this rule. In addition, the definitions in Section 403.031, Florida Statutes, and the following definitions shall apply to this rule:

(1) "Mine" is any area of land, surface or underground, used for or resulting from the extraction of phosphate content from phosphate bearing materials.

(2) A "New Pollution Source" means any mine and beneficiation process for which the construction or operation of the industrial wastewater treatment facilities was not permitted before July 20, 1981. Any mine or beneficiation process for which a complete application to construct the industrial waste treatment facilities was filed with the Department on or before December 31, 1981, shall be deemed as existing. New pollution sources do not include expansions or modifications of existing sources.

(3) "Non-filterable, Non-volatile Residue (Fixed Solids)" means those solids which represent the difference between the total non-filterable residue and the total volatile residue determined in accordance with the test methods specified at page 95 of the 14th edition of Standard Methods for the Examination of Water and Wastewater.

(4) "Normal Working Level" of an impoundment means that level resulting from the normal height or number of damming boards maintained at the outfall(s) under normal operating conditions.

(5) "Points of Discharge" mean any outfall structure or location where the effluent from the mining or beneficiation process leaves the treatment system and enters waters of the State. The point of discharge shall be specified in Department permits for all discharges from a mining or beneficiation process.

(6) "Sample" means a representative sample of the discharge.

(7) "Total Non-filterable Residue (Total Suspended Solids)" means those solids which are retained by an approved filter and dried to a constant weight at 103° to 105° C as described at page 94 of the 14th edition of Standard Methods for the Examination of Water and Wastewater.

(8) "Total Phosphorus" means the total phosphorus in an unfiltered sample measured in milligrams per liter using the manual or automated ascorbic acid method following persulfate digestion as referenced at pages 476, 481, and 624 of the 14th

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edition of Standard Methods for the Examination of Water and Wastewater or measured in accordance with a comparable analytical method approved by the United States EPA or the Department.

(9) The "1-Day Maximum" means the highest values obtained by the methods specified in this rule of total non-volatile, non-filterable residue (fixed solids) and total non-filterable residue (suspended solids) or total phosphorus (P) of any sample collected as defined in (6) during a 24-hour period.

(10) The "30-Day Average" means the flow-weighted arithmetic mean of all the measured pollutant values obtained during any calendar month and analyzed in accordance with this rule. However, if during any calendar month there are three or less measured pollutant values, then the average shall be computed using the most recent four values.

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History -- New 11-27-89, Formerly 17-671.200.

62-671.300 Effluent Limitations.

he effluent guidelines and standards for mineral mining and processing in Rule 62-660.400(1)(e)31., F.A.C., apply herein, except where the provisions of this rule are more specific.

(1) The following effluent limitations apply to effluent discharges by a pollution source after application of the best practicable control technology currently available (BPT) and the best available technology economically achievable (BAT) or which may be discharged by a new pollution source, unless a more stringent standard is specified in accordance with Rule 62-671.310, F.A.C., measured at the point(s) of discharge as specified in a Department permit:

	1 Day Max.	30 Day Avg.
Total non-volatile, non-filterable residue (mg/1)	25	12
Total non-filterable residue (mg/1)	60	30
Total P* mg/1	5	3
pH	6.0 - 9.0	6.0 - 9.0

*Total Phosphorus shall be for monitoring and reporting only, except: if monitoring data shows total phosphorus levels exceed 3 mg/1 monthly average for more than one 30-day period per calendar year, the discharges, upon written notification by the Department, shall prepare and file within 120 days (unless the time is extended by the Department) a study consisting of the following: (a) a chronology of at least one year's

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discharge data; (b) an assessment of the cause and origin of the phosphorus constituent of the discharge, (c) description of the discharger's current maintenance, operation and management practices directly related to the control of phosphorus, (d) an evaluation of the environmental significance of the phosphorus levels; and (e) an identity of reasonable methods to abate, to the extent practicable, the influx of phosphorus into the discharge. Upon receipt of the report the Department shall require the applicant to publish a public notice in a newspaper of general circulation in the affected area which states that the report was received and where it is available for public inspection. The Department shall evaluate the report and may amend the discharger's permit to reflect additional requirements (subject to administrative and judicial review), including the implementation of cost-effective management practices or technological advances which reduce or eliminate the phosphorus in the discharge to the maximum extent practicable.

(2) To correct for losses during the testing and analysis, the analytic results from the above specified tests for non-filterable, non-volatile residue (fixed solids) shall be multiplied by a factor of 1.1 to be reported as total non-volatile, non-filterable residue.

(3) Monitoring requirements for effluent limitations shall be, as a minimum, the collection and analysis of one sample per week for each point of discharge when there is a discharge. When there is no discharge, the sample shall be taken the day of the next discharge.

(4) Any overflow caused by precipitation exceeding a 10-year 24-hour precipitation event from facilities designed, constructed, and operated to contain or treat to the applicable limitations the precipitation and runoff resulting from a 10-year 24-hour precipitation event shall not be subject to the effluent limitations of this section. No such overflow shall lower the level of any impoundment below the normal working level of that impoundment or any other impoundment, or below those levels that existed immediately prior to the 10-year 24-hour precipitation event. Provided, however, no source shall be relieved from compliance with Chapter 62-9, F.A.C.

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History -- New 11-27-89, Formerly 17-671.300, Amended 12-24-96.

62-671.310 New Source Requirements.

New pollution sources shall comply with the effluent limitations determined by the Department in accordance with this Rule.

(1) The applicant shall provide the Department with the following information in addition to the information required by Rules 17-3, 62-4, 62-660 and 62-671, F.A.C.:

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(a) A review of the treatment technologies being applied by similar domestic mining industries, listing the effluent concentration of pollutants, as well as a review of current literature relating to the subject of treating wastes from similar domestic mining industries.

(b) A determination of the lowest effluent limitations achievable for the facility by the application of the latest economically feasible technology.

(c) The basis for determining the effluent limitations specified in (b) above, and the basis for the determination of the economic feasibility of the technology.

(2) The Department shall make the determination of the lowest effluent limitation levels achievable for the facility by the application of the latest economically feasible technology. The limitations determined by the Department shall be for the parameters listed in Rule 62-671.300, F.A.C. and any other pollutant reasonably expected to be in the discharge and shall not be less stringent than the concentrations contained in Rule 62-671.300, F.A.C., except as provided in Rule 62-671.310(4), F.A.C. In making the determination, the Department shall give consideration to:

(a) All material submitted by the applicant.

(b) All scientific, engineering, and technical material, and other material available to the Department, including the effluent pollutant levels achieved by similar domestic mining industry or analogous treatment technologies.

(c) The social, environmental, and economic impact of the application and implementation of the achievement of the concentrations and discharge levels specified. The consequences of water conservation practices shall be considered.

(3) The effluent limitations determined in accordance with this paragraph shall be specified in terms of 1-day maximum and 30-day average in the Department permit for the facility and shall be the effluent standards for the facility except as provided in Rule 62-671.310(4), F.A.C.

(4) If, pursuant to this Rule, the Department imposes more stringent effluent limitations than those in Rule 62-671.300, F.A.C after determining that such more stringent effluent limitations can be attained by the application of innovative technology that has not been demonstrated on an operational plant-scale basis at a phosphate mine, the actual measured concentration of pollutant levels in discharged waste waters shall constitute compliance with the provisions of this chapter and with the effluent limitations contained in the Department permit for the source; provided that the permittee installs, operates, and maintains the required innovative technology in accordance with good engineering practices, public health and safety are not jeopardized, and the beneficial uses of the receiving waters are not substantially impaired.

(5) Within 15 days after receipt of the application for a construction permit for a facility which requires a determination in accordance with this paragraph, the Department, at the expense of the applicant, shall give notice of the application in the Florida Administrative Weekly and in a newspaper of general circulation in the affected

area concerning the determination required by this paragraph. The notice shall contain, as a minimum, the following information: the name of the applicant, the location of the proposed facility, the proposed receiving water, that an application has been received, the date received, the place where the application can be reviewed, and of the determination required by this paragraph.

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